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(71) Applicant: MOCHIDA PHARMACEUTICAL CO.,
LTD.
7, Yotsuya 1-chome
Shinjuku-ku
Tokyo 160 (JP)

(72) Inventor: Mochida, Ei
c/o Mochida Pharm. Co., Ltd.,
7, Yotsuya 1-chome
Shinjuku-ku,

Tokyo (JP)

Inventor: Miyauchi, Yasuhiko
c/o Mochida Pharm. Co., Ltd.,
7, Yotsuya 1-chome

Shinjuku-ku,

Tokyo (JP)

Inventor: Matsuura, Takashi
c/o Mochida Pharm. Co., Ltd.,
7, Yotsuya 1-chome

Shinjuku-ku,

Tokyo (JP)

Inventor: Katamine, Tomoaki
c/o Mochida Pharm. Co., Ltd.,
7, Yotsuya 1-chome

Shinjuku-ku,

Tokyo (JP)

(74) Representative: Patentanwälte Grünecker,
Kinkeldey, Stockmair & Partner
Maximilianstrasse 58
D-80538 München (DE)

(54) Apparatus and process for simplified measurement

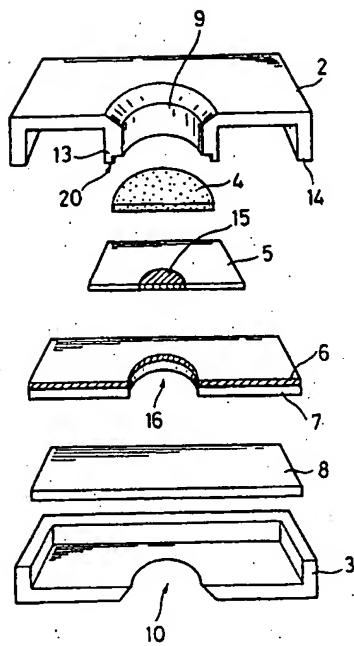
(57) This invention provides a simplified measuring apparatus for use in the qualitative or quantitative measurement of substances to be assayed, such as proteins, antibodies and the like, in a small amount of test samples by a simple and easy operation without requiring a B/F separation step, as well as a process for the measurement by the measuring apparatus.

More particularly, it provides a simplified measuring apparatus for use in the detection of the presence and quantity of substances to be assayed in test samples, which comprises: (a) a liquid permeable porous reaction membrane whose surface having at least one reaction area to which an affinity substance capable of directly or indirectly capturing a substance to be assayed or a soluble agent is

immobilized; (b) a porous body arranged on the upper part of the porous reaction membrane, to which a soluble agent capable of being solubilized by the addition of a test sample is adhered in a releasable manner; (c) an absorption member arranged on the lower part of the porous reaction membrane, which contacts with a periphery, excluding the reaction area, of the porous reaction membrane via a liquid non-permeable sheet; (d) a liquid non-permeable transparent cover arranged on the lower part of the absorption member; and (e) a liquid non-permeable cap which encloses the foregoing members (a) to (d), having an opening for use in test sample introduction on its top surface and another opening for judgement use on its under surface.

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FIG. 2





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EUROPEAN SEARCH REPORT

Application Number

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DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int.CLS)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
A	US-A-4 623 461 (HOSSOM ET AL) 18 November 1986 * the whole document *	1-15	G01N33/543 //G01N33/76
A	EP-A-0 335 244 (ABBOTT LABORATORIES) 4 October 1989 * abstract; figures 1,3,4 *	1-15	
A	EP-A-0 452 740 (BOEHRINGER MANNHEIM GMBH) 23 October 1991 * the whole document *	1,13-15	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.CLS)
			G01N
Place of search Date of completion of the search Examiner			
BERLIN	11 May 1995	Ceder, O	
CATEGORY F CITED DOCUMENTS			
X : particularly relevant if taken alone	T : theory or principle underlying the invention		
Y : particularly relevant if combined with another document of the same category	E : earlier patent document, but published on, or after the filing date		
A : technological background	D : document cited in the application		
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P : intermediate document	A : member of the same patent family, corresponding document		